

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Currently amended) A channel-shaped structural beam comprising:
a planar elongate web; and,
hollow parallel sided substantially rectangular flanges extending parallel to each other perpendicularly from a plane of said web along opposite sides thereof, said hollow flanges both extending in the same direction away from one face of said web, wherein a side of each of said flanges is coplanar with said web;
said beam having a ratio of the width of each said flange between opposite end faces thereof in a direction perpendicular to said plane of said web and the depth of said beam between opposite outer faces of said flanges in the ratio of from 0.2 to 0.4, said beam having a ratio of the width of each said flange to the depth of each said flange in the range of from 1.5 to 4.0, and said beam having a ratio of the width of each said flange to the thickness of said web in the range of from 15 to 50.
- 2-3. (Cancelled)
4. (Currently amended) The beam as claimed in claim ~~2~~ 1 wherein the ratio of said width of each said flange and the depth of each said flange is in the range of from 2.5 to 3.5
5. (Original) The beam as claimed in claim 4 wherein the ratio of said width of each said flange and said depth of each said flange is in the range of from 2.8 to 3.2.
6. (Original) The beam as claimed in claim 1 wherein the ratio of the width of each said flange to the depth of said beam may be in the ratio of from 0.25 to 0.35.
7. (Original) The beam as claimed in claim 6 wherein the ratio of the width of each said flange to the depth of said beam is in the range of from 0.28 to 0.32.

8. (Currently amended) The beam as claimed in claim 3 1 wherein the ratio of the width of the flange to the thickness of the web may be in the range of from 25 to 35.
9. (Original) The beam as claimed in claim 8 wherein the ratio of the width of the flange to the thickness of the web is in the range of from 28 to 32.
10. (Currently amended) The beam as claimed in claim 1 wherein said beam is fabricated from steel.
11. (Original) The beam as claimed in claim 10 wherein said beam is fabricated from high strength steel greater than 300 MPa.
12. (Original) The beam as claimed in claim 10 wherein said beam is fabricated from stainless steel.
13. (Withdrawn) The beam as claimed in claim 1 wherein said beam is fabricated from a planar web member with a hollow flange member continuously welded along opposite sides of said web member, each said hollow flange member having an end face lying substantially in the same plane as an outer face of said web member.
14. (Original) The beam as claimed in claim 1 wherein said beam is fabricated from a single sheet of steel.
15. (Original) The beam as claimed in claim 1 wherein said beam is fabricated by a folding process.
16. (Original) The beam as claimed in claim 1 wherein said beam is fabricated by a roll forming process.
17. (Withdrawn) The beam as claimed in claim 16 wherein free edges of said hollow flanges are continuously seam welded to an adjacent web portion to form closed hollow flanges.

18. (Withdrawn) The beam as claimed in claim 17 wherein said free edges of said hollow flanges are continuously seam welded to said one face of said web intermediate opposite edges of said web.

19. (Withdrawn) The beam as claimed in claim 17 wherein said free edges of said hollow flanges are continuously seam welded along respective side boundaries of said web.

20. (Original) The beam as claimed in claim 1 wherein said structural beam is fabricated in a continuous cold rolling process.

21. (Withdrawn) The beam as claimed in claim 20 wherein said free edges of said hollow flanges are continuously seam welded by a non-consumable electrode welding process.

22. (Withdrawn) The beam as claimed in claim 14 wherein said free edges of said hollow flanges are continuously seam welded by a consumable electrode process.

23. (Withdrawn) The beam as claimed in claim 21 wherein said free edges of said hollow flanges are continuously seam welded by a ERW process.

24. (Original) The beam as claimed in claim 1 wherein said structural beams are fabricated from sheet steel having a corrosion resistant coating.

25. (Withdrawn) The beam as claimed in claim 21 wherein said structural beams are coated with a corrosion resistant coating subsequent to welding of said free edges of said flanges.

26. (Withdrawn) The beam as claimed in claim 1 wherein said web includes stiffening ribs.

27. (Withdrawn) The beam as claimed in claim 26 wherein the stiffening ribs extend longitudinally of said web.

28. (Withdrawn) The beam as claimed in claim 26 wherein said stiffening ribs extend transversely of said web.

29. (Withdrawn) The beam as claimed in claim 1 wherein each said flange includes one or more longitudinally extending stiffening ribs.